



# Moffett Community Housing Groundwater Update No. 3

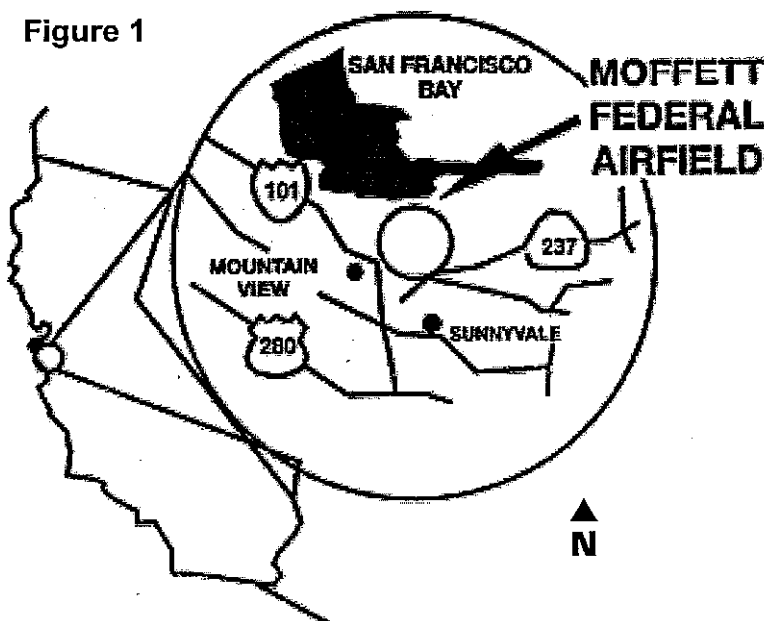
*Moffett Field, California*

*August 2002*

## Introduction

This is the third Groundwater Update about environmental activities that are being conducted by the U.S. Navy at Moffett Community Housing. Moffett Community Housing is owned by the U.S. Army and consists of three housing areas near Moffett Federal Airfield and the city of Mountain View. The investigation activities will be performed at two of the three areas, Orion Park and Wescoat Housing, located on the southern portion of the airfield, just north of California Highway 101 (see Figures 1, 2 and 3). This Update summarizes the Phase 1 findings. It also provides information about the fieldwork that will be conducted to collect the data needed for additional site characterization and evaluation of the risk to the health of the residents at Orion Park and Wescoat Housing. This and the previous two updates are available at the Moffett Housing Project Office (see Project Points of Contact inside).

**Figure 1**



## ► What's Happening?

The Navy is moving into the next phase of environmental investigations at Moffett Community Housing. Preliminary studies have shown that the U.S. Environmental Protection Agency (EPA) health-based guidelines have not been exceeded. However, from late-August through late-September, the Navy will conduct additional fieldwork in the housing areas to collect information that will help ensure that the health and safety of the public is protected.

# Southwest Division Naval Facilities Engineering Command

## ► Background

Previous Groundwater Updates explained that the main chemicals of concern in groundwater beneath Orion Park and Wescoat Housing are trichloroethene (TCE) and the breakdown products of TCE, *cis*-1,2-dichloroethene (*cis*-1,2-DCE) and *trans*-1,2-dichloroethene (*trans*-1,2-DCE). TCE is commonly used in industrial cleaners, dry cleaning products and household cleaning products. Early studies showed that the chemical concentrations in the groundwater are low and do not present a human health risk.

In April 2001, the Navy announced a two-phased investigation plan to:

- ◆ Study the extent and potential on-site source(s) of chemicals in groundwater under the housing areas, and
- ◆ Further evaluate any possible risk to the health of the Orion Park and Wescoat Housing residents.

In February 2002, residents were informed of the fieldwork that was to be conducted in the neighborhood to better identify the source and extent of the chemicals. Phase 1 included analyzing groundwater samples collected throughout Orion Park and Wescoat Housing. Phase 1 field activities were conducted during February and March, 2002.

## PHASE 1 Results

TCE and some of its breakdown products were found in less than half of the shallow groundwater samples at Orion Park and in one of 21 shallow groundwater samples at Wescoat. Concentrations during Phase 1 and previous investigations were not found above levels of concern. The distribution of TCE and its breakdown products detected during Phase 1 at Wescoat and Orion Park is shown on Figures 2 and 3, respectively. Because groundwater at Moffett Community Housing is not used for drinking, irrigation or other domestic purposes, the chemicals do not pose a risk to residents through direct contact with groundwater.

## PHASE II

## Understanding the Fieldwork

The second phase of environmental investigations at Moffett Community Housing has two basic stages: additional characterization within Orion Park and evaluation of risk to the health of the residents of Orion Park and Wescoat Housing. These are described below.

### Additional Characterization

Cone Penetrometer Testing (CPT) will be conducted at 20 new locations at Orion Park (see Figure 3 on the back page) to collect samples that will help the Navy better understand the type and location of the contamination. As explained in the February 2002 Update, CPT uses a probing device mounted on a large truck that collects information about the makeup of subsurface soils, including the location of water bearing zones.

### Human Health Risk Assessment

A range of samples from seven housing unit locations will be collected and the data will be evaluated in a Human Health Risk Assessment.

Figures 2 and 3 show the possible locations where samples will be collected (only vacant, ground floor housing units will be sampled). The locations were chosen based on the results of Phase 1 groundwater sample analysis.

Sampling will be conducted between late-August and late-September and will entail the following:

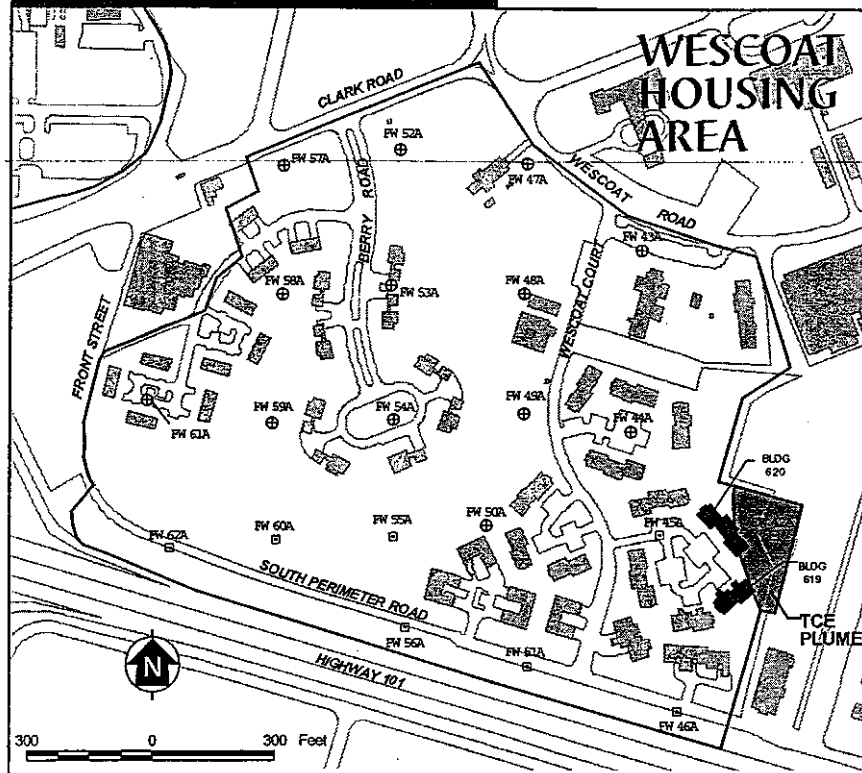
**1 Using Direct-Push Technology (DPT)**, field crews will drill two holes outside each selected housing unit to collect groundwater and soil samples. DPT uses a hydraulic device, mounted on a small truck, to collect soil and water samples. Samples will be collected to further evaluate soil characteristics and the presence of TCE and its breakdown products.

**2 Through 2-inch-diameter holes** cut into the bedroom or kitchen floors, field crews will collect samples of soil gas from below the housing unit concrete slab. Soil gas will be sampled because chemicals in groundwater can evaporate and travel upward into the air above. All sampling holes will be sealed off and the flooring repaired after the sampling is completed.

**3 Indoor and outdoor air samples** will be collected to determine whether there are contaminants in the indoor air and whether they are coming from outside or from under the buildings.

# Southwest Division Naval Facilities Engineering Command

**Proposed Sampling Locations** Figure 2



## LEGEND:

- ⊕ PHASE 1 DPT SAMPLE LOCATION
- ⊠ PHASE 1 DPT/CPT SAMPLE LOCATION
- PROPOSED PHASE 2 HUMAN HEALTH RISK ASSESSMENT SAMPLE LOCATION
- ▨ TCE/DCE DETECTED ABOVE 5 ug/L IN A1 AQUIFER ZONE

## ► Project Points of Contact

Involving and informing the public is an important part of this project. The project team is very interested in forming and keeping an open relationship with the residents living in the housing areas and surrounding communities. If you have questions or concerns, please feel free to contact one of the people named here.

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## How Your Neighborhood Will Be Affected

As with the sampling activity earlier this year, Moffett Community Housing residents will see field crews at different locations for about three weeks. Traffic may be impacted at various times.

It is possible that sampling may need to take place near your yard or that of a neighbor. All affected housing residents will be notified before fieldwork begins.

## What's Next

A draft report presenting the results of the fieldwork and the Baseline Human Health Risk Assessment is expected to be issued in November 2002. This report will be available for review by Moffett Community Housing residents as well as the EPA; California Regional Water Quality Control Board, San Francisco Region; National Aeronautics and Space Administration (NASA), the current property owner of Moffett Federal Airfield; the Army, the current property owner of Moffett Community Housing; and members of the public.

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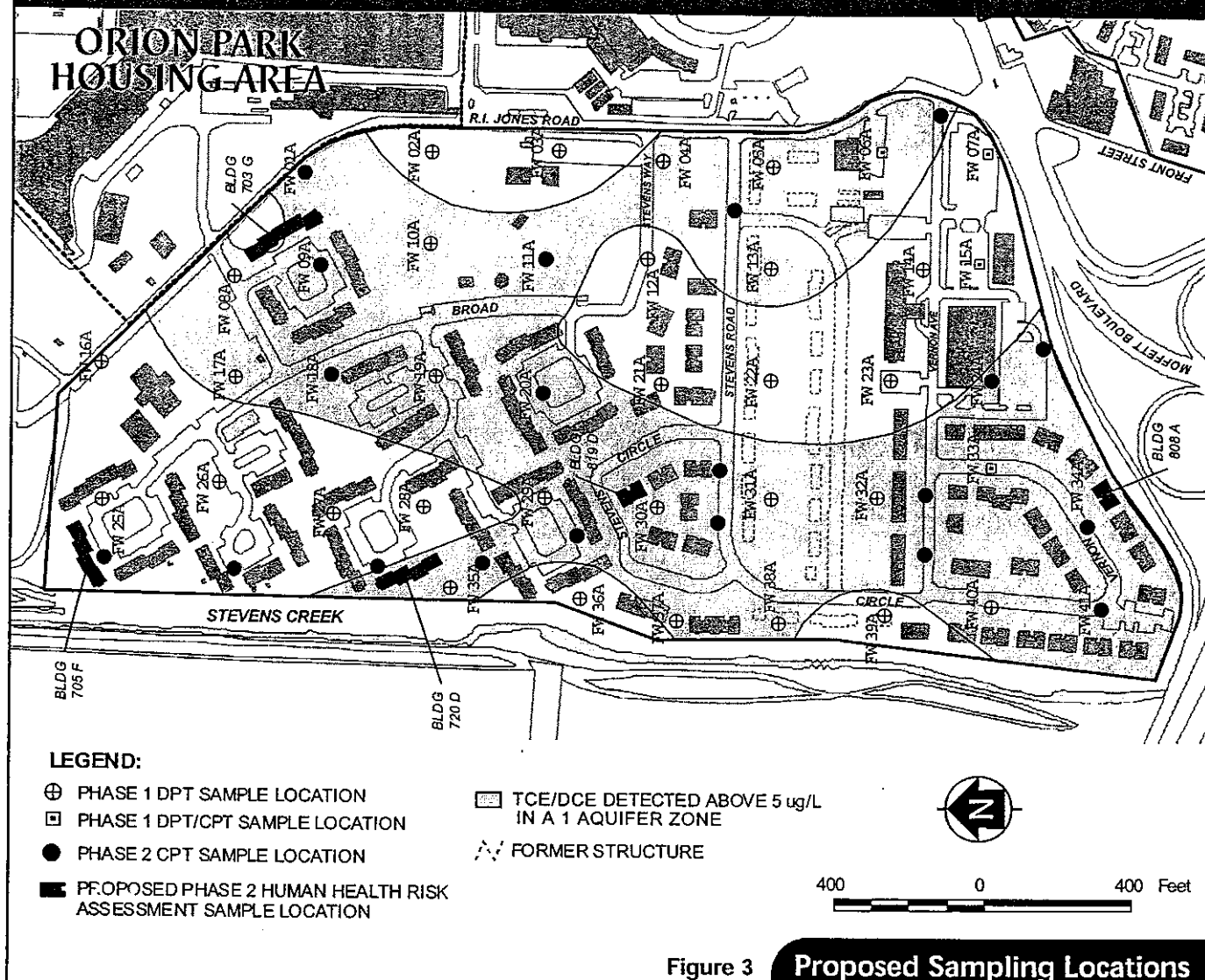


Figure 3 Proposed Sampling Locations

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